

B3  
cancel  
envelope protein, or the genome of the vector particle, gag, pol, an envelope protein, and comprising one or more RRE-type sequences, wherein all functional lentiviral auxiliary proteins are absent from the retroviral particle.

B4  
25.49. (Amended) A set of nucleic acid sequences encoding the components of the infection and transduction competent, lentivirus-based vector particle according to claim 20, comprising: a first DNA construct which encodes the genome of the vector particle, a second DNA construct which encodes gag and pol proteins, and a third DNA construct which encodes an envelope protein, wherein: one of the DNA constructs optionally comprises one or more RRE-type sequences; and all functional lentiviral auxiliary gene products are absent from the retroviral vector particle.

B5  
29.54. (Amended) A method for producing the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim 20, comprising coexpressing in a retroviral producer cell nucleic acid sequence(s) encoding the genome of the vector particle, gag and pol proteins, and an envelope protein, and, optionally comprising RRE-type sequences; and wherein all functional lentiviral auxiliary gene products are absent from the retroviral vector particle.

30.55. (Amended) A method for producing the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim 20 or 21, comprising coexpressing in a retroviral producer cell nucleic acid sequence(s) encoding the genome of the vector particle, gag and pol proteins, and an envelope protein; wherein all functional lentiviral auxiliary gene products are absent from the retroviral vector particle.

31.56. (Amended) A method for producing the infection and transduction competent, lentivirus-based, replication defective vector particle according to claim 20, consisting essentially of coexpressing in a retroviral producer cell nucleic acid sequence(s) encoding the genome of the vector particles, gag and pol proteins, and an envelope protein.

B6  
35.60. (Amended) The method of claim 24 wherein the coexpressing is of: a first DNA construct which encodes the genome of the vector particles, a second DNA construct which encodes gag and pol proteins, and a third DNA construct which encodes the envelope protein, wherein one of the DNA constructs optionally comprises one or more RRE-type sequences.

B7  
37.62. (Amended) The method of claim 35 wherein the coexpressing is of: a first DNA construct which encodes the genome of the vector particles, a second DNA construct which

<sup>39</sup>  
<sup>conv</sup> encodes gag and pol proteins, and a third DNA construct which encodes the envelope protein, wherein one of the DNA constructs optionally comprises one or more RRE-type sequences.

<sup>38</sup> <sup>49</sup> 76. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>29</sup> 54, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>50</sup> 77. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>30</sup> 55, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>51</sup> 78. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>31</sup> 56, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>52</sup> 79. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>32</sup> 57, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>53</sup> 80. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>33</sup> 58, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>54</sup> 81. (Amended) An infection and transduction competent, lentivirus-based, replication defective vector particle produced by the method of claim <sup>34</sup> 59, wherein the particle lacks all functional lentiviral auxiliary gene products.

<sup>55</sup> 82. (Amended) An isolated nucleic acid sequence encoding the components of the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim <sup>1</sup> 20, comprising DNA construct(s) which encode the genome of the vector particle, gag and pol proteins, and an envelope protein, wherein, the nucleic acid sequence produces the lentivirus-based, replication defective vector particle, and, wherein: the DNA construct(s) optionally comprise one or more RRE-type sequences; and all functional auxiliary gene products are absent from the retroviral vector particle.

<sup>56</sup> 83. (Amended) Isolated nucleic acid sequence(s) encoding the components of the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim <sup>2</sup> 20 or <sup>2</sup> 21, comprising construct(s) which encode the genome of the vector

particle, gag and pol proteins, and an envelope protein, wherein all functional auxiliary gene products are absent from the retroviral vector particle.

38 51. (Amended) Isolated nucleic acid sequence(s) encoding the components of the infection and transduction competent, lentivirus-based vector particle of claim 20, consisting essentially of construct(s) which encode(s) the RNA genome of the vector particle, gag and pol proteins, and an envelope protein, wherein the construct(s) optionally comprises one or more RRE-type sequences.

10 50. (Amended) The retroviral vector production system wherein according to claim 20 or 30 wherein the retroviral vector particle is based on HIV-1 and auxiliary genes *vpu*, *vpr*, *vif*, *tat*, *rev* and *nef* are absent or are disrupted.

39 61. (Amended) The retroviral vector production system according to claim 29 or 30 wherein at least one RRE-type sequence comprises a constitutive transport element (CTE).

62. (Amended) The retroviral particle of claim 20 or 21 wherein at least one RRE-type sequence comprises a constitutive transport element (CTE).

[ Please add the following claims:

310 63. (New) The retroviral vector production system according to claim 29 wherein the constitutive transport element (CTE) is a Mason Pfizer monkey virus CTE.

64. (New) The retroviral vector production system according to claim 90 wherein the constitutive transport element (CTE) is a Mason Pfizer monkey virus CTE.

65. (New) A retroviral vector production system for producing the infection and transduction competent, lentivirus-based retroviral vector particle according to claim 29 or 30, wherein all functional lentiviral auxiliary genes are absent, or are disrupted, and not functionally expressed in the system.

66. (New) A set of nucleic acid sequences encoding the components of the infection and transduction competent, lentivirus-based vector particle according to claim 21, comprising: a first DNA construct which encodes the genome of the vector particle, a second DNA construct which encodes gag and pol proteins, and a third DNA construct which encodes an envelope protein, wherein: one of the DNA constructs comprises one or more RRE-type sequences; and all functional lentiviral auxiliary gene products are absent from the retroviral vector particle.

67. (New) A method for producing the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim 21, comprising

coexpressing in a retroviral producer cell nucleic acid sequence(s) encoding the genome of the vector particle, gag and pol proteins, and an envelope protein, and comprising RRE-type sequences; and all functional lentiviral auxiliary gene products are absent from the retroviral vector particle.

B10  
16898. (New) An isolated nucleic acid sequence encoding the components of the infection and transduction competent, lentivirus-based, replication defective vector particle as claimed in claim ~~21~~<sup>2</sup>, comprising DNA construct(s) which encode the genome of the vector particle, gag and pol proteins, and an envelope protein, wherein, the nucleic acid sequence produces the lentivirus-based, replication defective vector particle, and, wherein: the DNA construct(s) comprise one or more RRE-type sequences; and all functional auxiliary gene products are absent from the retroviral vector particle.

1691. (New) Isolated nucleic acid sequence(s) encoding the components of the infection and transduction competent, lentivirus-based vector particle of claim ~~21~~<sup>2</sup>, consisting essentially of construct(s) which encode(s) the RNA genome of the vector particle, gag and pol proteins, and an envelope protein, wherein the construct(s) comprises one or more RRE-type sequences.

17098. (New) A method for producing the infection and transduction competent, lentivirus-based, replication defective vector particle according to claim ~~21~~<sup>2</sup>, consisting essentially of coexpressing in a retroviral producer cell nucleic acid sequence(s) encoding the genome of the vector particles, gag and pol proteins, and an envelope protein, wherein the nucleic acid sequence(s) comprises one or more RRE-type sequences.

17199. (New) A set of nucleic acid sequences according to claim ~~48~~<sup>25</sup> or ~~94~~<sup>66</sup>, wherein all genes encoding lentiviral auxiliary gene products are absent from or disrupted in the set of sequences and not functionally expressed in producer cells.

17200. (New) The method of claims ~~54~~<sup>29</sup> or ~~98~~<sup>67</sup>, wherein all lentiviral auxiliary genes encoding lentiviral auxiliary gene products are absent from or disrupted in the sequence(s) and not functionally expressed in producer cells.

17301. (New) The method of claim ~~55~~<sup>30</sup>, wherein all lentiviral auxiliary genes encoding lentiviral auxiliary gene products are absent from or disrupted in the sequence(s) and not functionally expressed in producer cells.

<sup>74</sup>  
102. (New) The isolated nucleic acid sequence according to claim <sup>55</sup>~~82~~ or <sup>68</sup>~~96~~, wherein all genes encoding lentiviral auxiliary gene products are absent from or disrupted in the sequence and not functionally expressed in producer cells.

<sup>75</sup>  
103. (New) The isolated nucleic acid sequence(s) according to claim <sup>57</sup>~~84~~ or <sup>69</sup>~~97~~, wherein all genes encoding lentiviral auxiliary gene products are absent from or disrupted in the sequence(s) and not functionally expressed in producer cells.

BIO  
cancel

Please cancel claims <sup>6</sup>~~34~~, <sup>4</sup>~~43-46~~, <sup>5</sup>~~50~~, <sup>6</sup>~~65~~, <sup>7</sup>~~66~~ and <sup>8</sup>~~86~~ without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.